REMARKS

This Amendment, submitted in response to the Office Action dated February 25, 2010, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 1, 3-6, 8-17, 20-22 and 24-38 are all the claims pending in the application.

I.   Objection to the Title

The Examiner objects to the title asserting that the title is not descriptive. Applicant has amended the title as indicated above. Applicant believes that the amendment to the title addresses the Examiner's objection, therefore, Applicant requests that the objection to the title be withdrawn.

II.   Claim Rejections - 35 U.S.C. § 101

Claims 33-34 are rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter. Applicant has amended claim 33 as indicated above. Therefore, Applicant submits that claim 33 is directed to statutory subject matter and the 35 U.S.C. § 101 rejection should be withdrawn.

III.   Rejection of claims 1, 3, 5, 17, 19, 21, 35, and 36 under 35 U.S.C. § 103

Claims 1, 3, 5, 17, 19, 21, 35, and 36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Piotrowski (US 2002/0188959) in view of Kuzma (U 5,889,950) and further in view of Eng (US 5,963,557).

Claim 1

Claim 1 recites, *inter alia,*:

> a reference clock generator/transmitter, which generates and transmits a reference clock value, which is a current time value of real-time multimedia broadcasting at the transmission and reception locations;
>
> a multimedia document generator/transmitter, which generates and transmits a multimedia document scheduled at the generated reference clock value; and
>
> a media data generator/transmitter, which generates and transmits media data used to render the generated multimedia document;
>
> wherein the multimedia document is a synchronized multimedia integration language (SMIL) document.

The Examiner asserts that the combination of Piotrowski, Kuzma and Eng teaches the elements of claim 1. Applicant traverses this rejection.

As previously submitted, Piotrowski teaches a system for displaying supplemental multimedia information to a user. A user can receive, automatically or by request, supplemental multimedia information related to a video or TV program using SMIL. See abstract. The supplemental multimedia information is edited and synchronized to the action and events of the video/multimedia program. This ensures that the supplemental multimedia information is available to the viewer at the proper times throughout the multimedia program. See paragraph [0025].

Piotrowski at most discloses providing supplemental multimedia information at a proper time. Contrary to the Examiner's assertions, there is no teaching or suggestion of a reference clock generator/transmitter or that such a reference clock generator/transmitter generates and

transmits a reference clock value, which is a current time value of real-time multimedia

broadcasting at the transmission and reception locations, as claimed.

Further, there is no teaching or suggestion of a multimedia document

generator/transmitter, which generates and transmits a multimedia document scheduled at the

generated reference clock value.

Piotrowski discloses providing supplemental multimedia information via a web page.

The web page can be written using a language such as SMIL. However, Applicant submits that

there is no teaching or suggestion of a multimedia document generator/transmitter. Piotrowski

merely discloses that the multimedia information can be in SMIL. There is no teaching or

suggestion regarding the generation of the SMIL document.

Further, there is no teaching or suggestion that the multimedia document

generator/transmitter generates and transmits the multimedia document scheduled at the

generated reference clock value. Specifically, there is no teaching or suggestion regarding the

relationship between the multimedia document and a generated reference clock value. As

discussed above, Piotrowski does not teach or suggest generating or transmitting a reference

clock value, let alone generating and transmitting a multimedia document scheduled at the

generated reference clock value.

Claim 1 further recites "a media data generator/transmitter, which generates and transmits

media data used to render the generated multimedia document." The Examiner cites paragraphs

[0024] and [0029-0038] of Piotrowski for teaching this aspect of the claim. However, the

portion of Piotrowski cited by the Examiner describes the supplemental multimedia information,

which the Examiner cited for teaching the claimed multimedia document generator/transmitter.

Piotrowski does not appear to teach or suggest a media data generator/transmitter which

generates and transmits media data <u>used to render the generated multimedia document</u>, as

claimed.

On page 3 of the Office Action, in response to Applicant's arguments, the Examiner

asserts:

> In response to applicant's arguments that the given references do not teach "a
> reference clock...and reception locations", Page 2, lines 4-5, the examiner respectfully
> disagrees. Piotrowski teaches the generation and transmission of multimedia
> documents based on a scheduled time. For instance, a user is watching a television
> show and supplemental multimedia information automatically displays in a "pop-up".
> The SMIL documents are synchronized through the use of time codes transmitted to the
> client with the data. The documents include the synchronization data for the
> supplemental multimedia information so that when a scheduled time is reached the
> multimedia is automatically displayed (Para. 24, 30-40). Blackketter and Eng both
> teach periodically generating and transmitting reference clock values in order to
> maintain synchronization between a server or head-end and a receiver. Therefore, the
> aforementioned limitation is taught by the given references.

As such, the Examiner alleges that Piotrowski teaches the generation and transmission of

multimedia documents on a scheduled time. The Examiner provides an example that a user is

watching a television show and supplemental multimedia information automatically displays in a

"pop-up". That is, the Examiner believes "a multimedia document scheduled at the generated

reference clock value" of claim 1 corresponds to the "supplemental multimedia information" of

Piotrowski.

On page 4 of the Office Action, the Examiner asserts:

> In response to applicant's arguments that the given references teach "the
> video/TV program corresponds to the 'media data' in claim 1", Page 3, lines 9-10, the
> examiner respectfully disagrees. As stated and cited above, Piotrowski clearly states
> building a SMIL multimedia document using various types of multimedia files. For
> instance, a user is watching a television show and supplemental multimedia information
> automatically displays in a "pop-up". As one can see, the TV program and the
> supplementary content are separate files.

Therefore, the Examiner asserts that the "supplemental multimedia information" and not
"video/TV program 14" of Piotrowski teaches the "media data" of claim 1.

As recited in claim 1, an exemplary embodiment of the invention generates and
transmits a multimedia document scheduled at the generated reference clock value, and generates
and transmits media data used to render the generated multimedia document. Thus, in claim 1,
the multimedia document and the media data are **separate files**. Accordingly, both of the
multimedia document and the media data **cannot correspond to** the supplemental multimedia
information, i.e., **one file**, of Piotrowski.

Therefore, Piotrowski does not teach or suggest "a multimedia document
generator/transmitter, which generates and transmits a multimedia document scheduled at the
generated reference clock value and a media data generator/transmitter, which generates and
transmits media data used to render the generated multimedia document," as recited in claim 1.

Also, the invention as recited in claim 1, generates and transmits a reference clock
value of real-time multimedia broadcasting, generates and transmits a multimedia document

scheduled at the generated reference clock value, and then generates and transmits media

data used to render the generated multimedia document.

However, the supplemental multimedia information 13 of Piotrowski is synchronized

using time codes within the video/TV program 14. See paragraph [0025].

Further, paragraph [0023] of Piotrowski discloses:

> [0023] It is understood that the video/multimedia program
> 14 may be one of many television programs 19 that are
> broadcast or transmitted to the public. The video program
> may be a sitcom, a sports program, a news program, a
> movie, a commercial, a soap opera, a documentary, a car-
> toon, a how-to show, etc. The television program 19 is
> received and displayed by conventional electronic equip-
> ment. The electronic equipment may receive the television
> program 19 through an antenna adapted to receive TV
> signals from a TV broadcast station, from a satellite tran-
> sponder, a trunk cable from a CATV (i.e. cable TV) system,
> or from any other suitable transmission means.

As such, the video/TV program 14 is one of many television programs that are broadcast

or transmitted to the public. That is, **the video/TV program 14 corresponds to the "media**

data" in claim 1. Accordingly, Piotrowski transmits only supplemental multimedia information

synchronized with the video/TV program 14, i.e., media data. In other words, Piotrowski **does**

not generate and separately transmit a clock value for any information or data.

Furthermore, the video/TV program 14 is one-way broadcasting because it is one of

many television programs broadcast or transmitted to the public. The supplemental multimedia

information 13 is **one-way broadcasting** because it is only supplemental information

subordinate to video/TV program 14.

However, the claimed invention realizes two-way broadcasting, i.e., interactive broadcasting by generating and transmitting a reference clock value of real-time multimedia broadcasting, and then generating and transmitting a multimedia document scheduled at the generated reference clock value and then generating and transmitting media data used to render the generated multimedia document.

Therefore, Piotrowski does not disclose or teach "... generates and transmits a reference clock value ... of real-time multimedia broadcasting ... ; ... generates and transmits a multimedia document scheduled at the generated reference clock value; and ... generates and transmits media data used to render the generated multimedia document ...," as recited in claim 1.

Further, Kuzma and Eng do not cure the deficiencies of Piotrowski and it would not be obvious to modify Piotrowski as suggested by the Examiner.

On page 7 of the Office Action, the Examiner states that Piotrowski does not clearly teach that the reference clock value is a current time value of real-time multimedia broadcasting at the transmission and reception locations, or generating and transmitting a multimedia document scheduled at the generated reference clock value, and cites Kuzma to cure the deficiency. The Examiner asserts that Kuzma, col. 5, lines 10-21, 28-51; col. 6, lines 26-34 and col. 7, lines 40-47, teaches this aspect of the claim.

Kuzma is directed to scripting broadcast data relating to television programs and web pages. See col. 1, lines 5-10. Local affiliate networks who receive broadcast television material from a national source can insert local advertisements and programming at certain time slots

during re-transmission of the broadcast material. See col. 1, lines 34-37. Local affiliates would like to determining when a national resource is broadcasting a web page, how many pages are being broadcast at a time and the content of the pages. See col. 2, lines 18-23.

The aspects of Kuzma cited by the Examiner describe encoding HTML web pages into a format compatible with signals of a first location. A time stamp is provided as a time reference as to when a program or web page is to be broadcast. A local affiliate may use the time stamp to determine when it may insert local programming.

However, contrary to the Examiner's assertions, Kuzma does not cure the deficiencies of Piotroswki. The time stamp, which the Examiner appears to be citing for teaching the claimed reference clock value, provides a time reference as to when a program or web page is to be broadcast. The time stamp does not teach or suggest a current time value of real-time multimedia broadcasting at the transmission and reception locations. Further, there is no teaching or suggestion of generating and transmitting a multimedia document (SMIL document) scheduled at the generated reference clock value.

On page 8 of the Office Action, the Examiner asserts that Eng, column 17, lines 22-46, discloses a synchronizer which maintains a system clock and periodically broadcasts time stamps to subscriber stations in order to main synchronization. Eng discloses an upstream synchronizer maintaining a system clock and periodically broadcasting time stamps of the system clock so that all station system clocks and the head end system clock are synchronized. Eng does not teach the claimed elements. Further, Eng does not cure the deficiencies of Piotrowski and Kuzma.

For at least the above reasons, claim 1 and its dependent claims should be deemed allowable.

To the extent independent claims 6, 16, 17, 22, 32 and 33 recite similar subject matter,
independent claims 6, 16, 17, 22, 32 and 33 and their dependent claims should be deemed
allowable for at least the same reasons.

IV.   Rejection of claims 6, 8, 10-15, 22, 24, 26-31, and 37 under 35 U.S.C. § 103

Claims 6, 8, 10-15, 22, 24, 26-31, and 37 are rejected under 35 U.S.C. § 103(a) as being
unpatentable over Piotrowski in view of Blackketter (US 6,415,438) and further in view of Eng.

As indicated above, to the extent independent claims 6 and 22 recite subject matter
similar to claim 1, claims 6 and 22 and their dependent claims should be deemed allowable for at
least the same reasons. Moreover, Eng does not cure the deficiencies of Piotrowski and
Blackketter.

Claims 8, 10-15, 24, 26-31, and 37 should be deemed allowable by virtue of their
dependent to independent claims 6 and 22.

Further, Blackketter discloses an interactive television trigger which has a time attribute
value which indicates a future time when the trigger is to be executed. See abstract. A receiver
unit determines the future time from the time attribute and waits until the indicated future time.
At the indicated future time, the receiver unit executes the trigger. See column 4, lines 56-60.
The trigger can indicate a year, a month and a day. A time attribute value "T" indicates a wall-
clock date and time. See column 5, lines 7-20. The received unit maintains an indication of the
current date and time. See column 5, lines 22-30.

Blackketter discloses broadcasting the current date and time to the receiver so that the
receiver, such as a WebTV® can maintain a current date and time. Assuming *arguendo*,

Blackketter teaches a reference clock generator/transmitter, there is no teaching or suggestion of

generating and transmitting a multimedia document scheduled <u>at the generated reference clock</u>

<u>value.</u>

V.   Rejection of claims 16 and 32 under 35 U.S.C. § 103

Claims 16 and 32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over

Piotrowski in view of Kuzma in view of Blackketter and further in view of Eng.

To the extent claims 16 and 32 recite subject matter similar to claim 1, they should be

deemed allowable for at least the same reasons. Further, Blackketter does not cure the

deficiencies of Piotrowski, Kuzma and Eng.

VI.   Rejection of claims 4, 20, 33 and 34 under 35 U.S.C. § 103

Claims 4, 20, 33 and 34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over

Piotrowski in view of Kuzma in view of Eng and further in view of the Real-Time Streaming

Protocol Specification (RFC 2326).

Claims 4 and 20 should be deemed allowable by virtue of their dependency to

independent claims 1 and 17 for at least the reasons set forth above. To the extent independent

claim 33 recites subject matter similar to claim 1, claim 33 and its dependent claim 34 should be

deemed allowable for at least the same reasons. Moreover, RFC 2326 does not cure the

deficiencies of Piotrowski, Kuzma and Eng.

VII.   Rejection of claims 9 and 25 under 35 U.S.C. § 103

Claims 9 and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Piotrowski in view of Blackketter in view of Eng and further in view of the Real-Time Streaming Protocol Specification (RFC 2326).

Claims 9 and 25 should be deemed allowable by virtue of their dependency to claims 6 and 22 for at least the reasons set forth above.   Further, RFC 2326 does not cure the deficiencies of Piotrowski, Blackketter and Eng.

VIII.   New Claim

Applicant has added claim 38 to more explicitly describe that the broadcasting is interactive.   Support for the amendment can be found at, for example, paragraph [0030] of the originally filed specification. Applicant submits that the art cited by the Examiner does not teach the elements of claim 38. Therefore, claim 38 should be deemed allowable.

IX.   Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue

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Respectfully submitted,

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